

CLAIMS

1. Nucleic acid encoding for a protein with endoribonucleasic activity wherein said protein with endoribonucleasic activity is characterized in that it is polyU and single filament specific, Mn⁺⁺ ions dependent and able to release 2'-3' cyclic phosphate and 5'OH ends cleavage products.
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2. Nucleic acid according to claim 1 substantially including SEQ ID No 1 nucleotide sequence, functional homologs thereof or a complementary sequence thereto.
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3. Recombinant vector able to express effectively the inventive nucleic acid in prokaryotes according to claims 1 or 2.
4. Recombinant vector able to express effectively the inventive nucleic acid in eukaryotes according to claims 1 or 2.
5. Protein with endoribonucleasic activity characterized in that it is polyU and single filament specific, Mn⁺⁺ ions dependent and able to release 2'-3' cyclic phosphate and 5'OH ends cleavage products or functional portions thereof.
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6. Protein according to claim 5 encoded by nucleic acid according to claims 1 or 2,
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7. Protein according to claim 6 having substantially SEQ ID No 2 amino acid sequence.
8. Use of the protein with endoribonucleasic activity according to any of claims 5 to 7 in analytical and/or synthetic applications.
9. Use according to claim 8 wherein the analytical applications are selected from the group consisting of RNA sequencing, point mutation detection, RNA molecular digital fingerprinting determination, RNA structural analysis, RNase protection assays.
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10. Use according to claim 8 wherein the synthetic applications consist of RNA degradation for the preparation of biological macromolecules.
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11. Use according to claim 10 wherein biological macromolecules are selected from the group consisting of c-DNA, plasmid DNA, genomic DNA and recombinant protein.
12. Use of the protein with endoribonucleasic activity according to any of claims 5 to 7 for the preparation of pharmaceutical kits for molecular analysis of nucleic acids.
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13. Use of the protein with endoribonucleasic activity according

to any of claims 5 to 7 for the preparation of pharmaceutical kits for the synthesis of biological macromolecules.

14. Use according to claim 12 wherein molecular analysis is RNA analysis.

5 15. Use according to claim 13 wherein biological macromolecules are selected from the group consisting of c-DNA, plasmid DNA, genomic DNA and recombinant protein.

10 16. Pharmaceutical kits for molecular analysis of nucleic acids, including the protein with endoribonucleasic activity according to any of claims 5 to 7.

17. Pharmaceutical kits for synthesis of biological macromolecules, including the protein with endoribonucleasic activity according to any of claims 5 to 7.